

Applicant : Michael F. Roberts et al.  
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Attorney's Docket No.: 00216-368004 / OB-84D

PROPOSED AMENDMENT

REMARKS

An IDS is submitted herewith.

Regarding the Examiner's Informal Amendment, Applicants respectfully suggest that the Examiner meant that the correction was needed at line 2 of claim 56 (not claim 55). Claim 56 has been amended to replace the second "surface" with "edge." Applicants thank the Examiner for pointing this out.

Regarding Applicants' reply of May 14, 2003 to the April 30, 2003 Office Action in which the specification was amended to include a general formula for polymers commercially available under the tradename "PEBAX," please note that no product literature was submitted with the reply as stated. Applicants meant to say that the PEBAX product literature was previously submitted with an IDS for the parent case (serial 08/730,286), the present application being a divisional of the parent.

Claims 52-54, inclusive, have been rejected under 35 U.S.C as being unpatentable over Pavone et al. (U.S. patent 5,325,560) in view of Modic (U.S. patent 5,723,543). Applicants respectively disagree that the "bumper material" of Pavone could be brought into contact with the interdental spaces as asserted by the Examiner. However, in order to progress the claims to allowance, claim 52 has been amended.

Claim 52, as amended, features an oral brush suitable for massaging the gums, including an elongated handle, a head portion and a brush portion. The brush portion includes at least one elastomeric element extending a sufficient distance from the head portion to contact the interdental spaces, the elastomeric element extends upwardly from the head portion in substantially the same direction as at least some of the non-elastomeric bristles to simultaneously massage the gums and contact the interdental spaces.

Pavone teaches two types of elastomeric elements that are useful for an orthodontic toothbrush. Neither of these elements is disposed to contact the interdental spaces of a user. The first element is "flexible member 26" that is disposed underneath the central bristles. Pavone states that "this flexible member 26 serves as an air pocket." This first flexible member, because

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it is disposed at the base of the bristles, is not capable of massaging the gums and contacting the interdental spaces as recited in claim 52. The second element taught by Pavone is "bumper 38." Bumper 38 is positioned along the side of the toothbrush head, and thus, like flexible member 26, it is not capable of massaging the gums and contacting the interdental spaces. Moreover, the bumper does not "extend upwardly from said head portion in substantially the same direction as at least some of the non-elastomeric bristles", as recited in amended claim 52.

Modic teaches a new thermoplastic elastomer composition. Potential uses include "automotive instrument panels, knobs, buttons, pen/pencils grips, cellular phones, toothbrushes, handles and tool grips" (col. 4, lines 25-27). Modic does not describe where or how the thermoplastic elastomer compositions would be used on a toothbrush, and thus does not supply what is lacking in the Pavone reference.

Combining Pavone with Modic will not produce the present invention, because neither reference teaches or suggests an oral brush, suitable for massaging the gums, that includes an elastomeric element extending a sufficient distance from the toothbrush head to contact the interdental spaces in which the elastomeric element extends upwardly from said head portion in substantially the same direction as at least some of the non-elastomeric bristles. Combining Pavone with Modic will produce only an orthodontic toothbrush with flexible members that, due to their disposition, are incapable of massaging the gums and contacting the interdental spaces.

Applicants believe that claim 52-54, inclusive, and new claim 57 are in condition for allowance which is respectfully requested.

Claim 55 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Coney (U.S. Patent 1,924,152) in view of Michaels (U.S. patent 5,040,260). Applicants respectfully disagree, but in order to progress the claims to allowance, claim 55 has been amended.

As amended, claim 55 features an oral brush suitable for massaging the gums including a head portion that includes a surface defined by two outer longitudinal edges, and a brush portion. The brush portion includes a single row of first bristles, comprising a thermoplastic elastomer, extending from the surface along one outer longitudinal edge. In addition to the first bristles, the brush portion includes a plurality of non-elastomeric bristles extending from the surface

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immediately adjacent to the single row of first bristles. At least some of the elastomeric bristles are substantially the same height as some of the non-elastomeric bristles.

Applicants have found that consumers generally prefer toothbrushes that have relatively small heads and that contain both elastomeric bristles and non-elastomeric bristles. Moreover, Applicants have discovered that for optimal cleaning of the teeth and gums, the brush portion should include a single row of first bristles, comprising a thermoplastic elastomer in which at least some of the elastomeric bristles are substantially the same height as some of the non-elastomeric bristles. If all the non-elastomeric bristles are too short relative to the elastomeric bristles, consumers tend to respond negatively, reporting that the brush feels as if it includes only elastomeric bristles. Also, the brush may perform relatively poorly at cleaning because the elastomeric bristles get in the way of the cleaning action of the non-elastomeric bristles. If, on the other hand, all of the non-elastomeric bristles are too long, consumers tend to be disappointed because they expect good gum massage (the brush visually looks like it should provide massage), but do not get it. Instead, the brush feels like a normal, non-elastomeric bristle brush, and provides relatively poor gum massaging properties because the non-elastomeric bristles get in the way of the massaging action of the elastomeric bristles. To summarize, if all of the non-elastomeric bristles are too short relative to the elastomeric bristles, the brush will feel like an elastomeric bristle brush and consumers will generally demand better cleaning. On the other hand, if all of the non-elastomeric bristles are too long relative to the elastomeric bristles, the brush will feel like a normal toothbrush and consumers will generally demand better massaging.

Michaels teaches a toothbrush head that includes a "plurality of integral projections extending outwardly" from the head. In Michaels' toothbrush head, all of the projections are made of a thermoplastic elastomer material; no non-elastomeric bristles are included. Brushing with Michaels' brush would only give the experience of brushing with rubber bristles since non-elastomeric bristles are absent.

Coney presents a toothbrush with both rubber bristles and hog's hair bristles (non-elastomeric bristles). In Coney's brush, the rubber bristles are designed to "partially shield the hair bristles and in this manner protect the gums against the abrasive action of the same" (col. 1-

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2, lines 56-57). The Coney brush has hair bristles that are "considerably longer than the protecting rubber bristles" (col. 2, lines 80-81).

Michaels provides no suggestion of adding non-elastomeric bristles to his toothbrush. If anything, Michaels would most likely have suggested to the artisan that non-elastomeric bristles are unnecessary. Coney teaches that the non-elastomeric bristles should be considerably higher than the elastomeric bristles. Thus, combining the teachings of Coney with the teachings of Michaels would not have resulted in Applicants' invention as now claimed. Instead, assuming for the sake of argument that these references can be properly combined, at most such a combination would have suggested a toothbrush in which all the non-elastomeric bristles are substantially longer than the elastomeric bristles. Therefore, claim 55 and 56 should now be in condition for allowance.

Enclosed is a \$ \_\_ check for excess claim fees. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: \_\_\_\_\_

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Celia H. Leber  
Reg. No. 33,524

Fish & Richardson P.C.  
225 Franklin Street  
Boston, MA 02110-2804  
Telephone: (617) 542-5070  
Facsimile: (617) 542-8906

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